

REMARKS

The Office Action in the above-identified application has been carefully considered and this amendment has been presented to place this application in condition for allowance.

Accordingly, reexamination and reconsideration of this application are respectfully requested.

Claims 1–10 are in the present application. It is submitted that these claims, as originally presented, were patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. § 112. Changes to the claims as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. sections 101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Claims 1, 3, 4, 6, and 8 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, and 5 of copending U.S. Patent application 09/358,160. As noted by the Examiner, a timely filed terminal disclaimer may be used to overcome the provisional double patenting rejections provided the conflicting application for patent is shown to be commonly owned with the present application.

The conflicting application is commonly owned with the present application. However, it is not clear whether following prosecution the allowable claims from the present application will be obvious in view of the allowable claims in copending U.S. Patent application 09/358,160. Hence, Applicants agree to file a terminal disclaimer if the allowable claims in the application are found to be obvious at the time of issuance of U.S. Patent application 09/358,160.

Claims 1, 2, 4-8, and 10 were rejected under 35 U.S.C. § 102(e) as being anticipated by Hieda (U.S. Patent 6,377,301). Both the present invention and Hieda are directed to video camera devices which operate in both interlaced and progressive (all-pixels) scan modes. More specifically, the present invention has a “scan converter means,” (shown as I/F Processing/Image Mix 3 in Figure 1) and Hieda discloses a frame memory 12 (Figure 1) to convert progressive scan mode images into interlaced scan mode images.

However, the present invention’s CCD is also capable of making this conversion from progressive to interlace mode internally. Claim 1 recites:

a solid image sensor for outputting an image sensing signal in an interlace scan mode or a progressive scan mode; wherein an image sensing charge in each pixel of the solid image sensor is output in the progressive scan mode and the image sensing charges from adjacent vertical pixels of the solid image sensor are added in the solid image sensor and output in the interlace scan mode.

This limitation is supported on page 8 of the specification and visually shown in Figure 3.

Whereas, Hieda’s “CCD 1 adopts an all-pixel reading-out method, the charges are first read out on a vertical transfer line without being added and are vertically transferred.” (Column 4, lines 44-46) In Hieda, “the digital video signal is input to the frame memory 12, where, in the still-image mode, a noninterlaced image is converted into an interlaced image.” (Column 5, lines 4-6) Further, Hieda discloses that “the frame memory 12 is necessary when displaying an image picked up in the still-image mode on an apparatus which deals with an interlaced image.” (Column 5, lines 19-20) Although Hieda does halve the readout frequency, as shown in Figure 2, all of the pixel data is still read-out and buffered; only at a slower rate to allow time for subsequent processing and conversion. Accordingly, Hieda does not disclose converting from progressive to interlace mode within registers “in the solid image sensor” as claimed in the

present invention. Therefore, for at least this reason, Hieda fails to anticipate the present invention and the rejected claims should now be allowed.

Claims 3 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hieda in view of Parulski et al. (U.S. Patent 5,440,343). Parulski is relied upon solely to meet the present invention's "switching a reading mode of the solid image sensor to a progressive scan mode when the recording medium is a memory card." (Claims 3 and 9) However, since dependent claim 3 inherits the limitations of independent claims 1 and 6 respectively, the rejection based on the additional reference to Parulski should be withdrawn in view of the foregoing discussion.

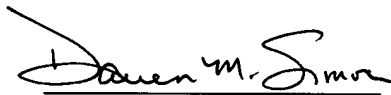
In view of the foregoing amendment and remarks, it is respectfully submitted that the application as now presented is in condition for allowance. Early and favorable reconsideration of the application are respectfully requested.

No additional fees are deemed to be required for the filing of this amendment, but if such are, the Examiner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account No. 50-0320.

If any issues remain, or if the Examiner has any further suggestions, he/she is invited to call the undersigned at the telephone number provided below. The Examiner's consideration of this matter is gratefully acknowledged.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By:



Darren M. Simon
Reg. No. 47,946
(212) 588-0800